

**REMARKS**

Claims 1-5, 7-14, 16-19, 21-27, 29-36, 38-45, 47-54 and 56-59 stand rejected. Claims 1, 10 and 19 have been amended. Claims 4, 6, 12, 15, 20, 21, 22, 28, 37, 46 and 55 have been cancelled. New claims 60-64 have been added by this amendment. Support for the amendments can be found throughout the specification and original claims. Accordingly, no new matter has been added.

Applicants' representative thanks Examiner Toomer for the courtesies extended during the interview of January 14, 2008. During the interview, the Yeh, Schwab and Cunningham were discussed. The substance of the interview is incorporated into the remarks below.

Regarding Yeh, Applicants' representative presented arguments during the interview that were similar to those set forth in the Amendment After Final of December 11, 2007. The Examiner indicated that if the claims were amended to include that the hydrocarbon additive is described by the formula  $R_1 R_2 CH-CH_2 - X$ , that this amendment in combination with Applicants' arguments would persuade her to withdraw the Yeh rejection. While Applicants do not agree that an amendment is necessary to overcome the Yeh rejection, in an attempt to further prosecution, Applicants have amended claim 1 to include the hydrocarbon formula, and request that the Yeh rejection be withdrawn. With respect to the remaining claims, Applicants ask that the Examiner reconsider the arguments presented in the Amendment After Final, and that the rejection be withdrawn without further amendment of these claims.

With regard to Schwab and Lin, Applicants argued that reducing peroxides would not have been obvious because Schwab teaches using peroxides, similarly as

discussed in the Amendment After Final. The Examiner disagreed with the arguments. In particular, the Examiner argued that Schwab teaches that peroxides are only optionally added, as indicated in claim 1 of Schwab. Applicants concede that peroxides are only optionally added to the compositions of Schwab.

However, as admitted by the Examiner, Schwab does not teach or suggest combining a hydrocarbon additive comprising a polar functional group and a tertiary hydrogen beta to the functional group with a middle distillate fuel having a sulfur content of about 20 ppm or less. The Examiner relies upon Lin for a teaching of low sulfur fuels. However, as discussed in the Amendment After Final, Lin does not recognize the benefit of adding the presently claimed additive to low sulfur fuels to reduce peroxides. Instead, Lin is directed to novel fuel additives that can act as both detergents and as lubricity additives. Lin, Column 1, Summary.

Because the claimed hydrocarbon additive comprising a polar functional group and a tertiary hydrogen beta to the functional group is not recognized by either Schwab or Lin for reducing peroxides, there is no motivation for combining the hydrocarbon additive with a low sulfur fuel to reduce peroxides. The problem of peroxide buildup in low sulfur fuels is a well documented problem. See page 3, second paragraph of the present disclosure. The failure of the prior art to recognize the benefits of employing the presently claimed additive to low sulfur fuels in order to solve this problem is evidence of the non-obviousness of this invention.

Accordingly, Applicants assert that there is insufficient motivation for combining Schwab and Lin, given their disparate teachings and their failure to recognize the benefits of combining the presently claimed additive in a low sulfur fuel. Accordingly, no

*prima facie* case of obviousness has been established, and the rejection should be withdrawn.

Regarding Cunningham, this reference teaches compositions comprising at least one peroxy ester combustion improver. As discussed in the Amendment After Final, the addition of peroxy ester combustion improvers in Cunningham, which have oxygen-oxygen single bonds and would thus be considered peroxides, teaches away from the claims of the present application. See Cunningham, column 2, lines 47 to 68. With regard to claim 1, the Examiner has entirely failed to address the addition of peroxy ester combustion improvers in Cunningham, or how it can be considered that a method of reducing peroxides is taught when Cunningham specifically teaches adding a peroxide. With respect to independent claims 10, 23, 32, 41, and 50, these claims recite, among other things, that the amount of peroxides in the fuel is less than about 8 ppm. This teaching is clearly not met by Cunningham given the specific addition of a peroxy ester to the compositions of Cunningham.

According to the Examiner, it would be reasonable to expect that the peroxide content of the fuel compositions of Cunningham would be reduced to less than about 8 ppm because Cunningham teaches low sulfur fuels and an oxygenate and hydrocarbon additive, similar to the claims of the present application. However, this reasoning is flawed because the additive of Cunningham is a peroxide which is not taught in the present application. Cunningham teaches concentrations of peroxy esters of about 250 to about 10,000 ppm, and further teaches that the fuel should contain "at least 250 parts per million of peroxy ester." Cunningham, column 4, lines 5 to 26. In order to properly rely on inherency, the Examiner must provide evidence that the

teachings of Cunningham would necessarily result in the reduction of peroxides, as in claim 1, or in the case of claims 10, 23, 32, 41, and 50, that the amount of peroxides in the fuel is less than about 8 ppm. The compositions of Cunningham, which include the added peroxides, are significantly different in this respect from the compositions of the present application. Accordingly, Applicants assert that the Examiner's reliance on inherency is without merit. Because Cunningham fails to teach or suggest every limitation of the claims, no *prima facie* case of obviousness has been established, and the rejection should be withdrawn.

Claim 19 has been amended by deleting alcohol and nitrates as the "X" group of the additive. None of the cited references teach the additive as now claimed. Accordingly, no *prima facie* case of obviousness exists, and the rejections should be withdrawn.

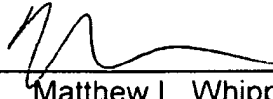
### CONCLUSION

In view of the foregoing Amendments set forth above, as well as the amendments made in the Amendment After Final of December 11, Applicants submit that this claimed invention is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request reconsideration of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 50-2961.

Respectfully submitted,

Dated: January 28, 2008

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